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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,776	03/31/2004	Hiroki Ashida	MIZ74	8630

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EXAMINER

BLAU, STEPHEN LUTHER

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,776

Applicant(s)

ASHIDA ET AL.

Examiner

Stephen L. Blau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,9,13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/31/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 4-5, 9 and 13-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3 June 2005.

Specification

2. The disclosure is objected to because of the following informalities:

a. On page 6 lines 1-2 it is not certain what the linear density of the first portion is greater than. These lines state that the linear density is greater than that of the linear density.

b. On page 7 lines 4-5 it is not certain what the linear density of the first portion is greater than. These lines state that the linear density is greater than that of the linear density.

Appropriate correction is required.

Claim Objections

3. Claims 6 and 8 are objected to because of the following informalities: In claims 6 and 8 it is uncertain what the units of x should be for the equations. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hisamatsu (6,478,689) or 2001-170232.

Hisamatsu discloses a shaft made of fiber reinforced plastic (Col. 8, Lns. 8-17), a tapered shape having an outer diameter generally increasing gradually from a tip portion to the butt portion (Fig. 1), a first portion in the form of a middle section having a linear density being uniform (Fig. 3, 1.2 P value), a second portion defined by the part of the shaft excluding the first portion (Fig. 3, 1 P value), a first portion occupying 30% the entire shaft length (Fig. 3, 1.2 P value, Col. 6, Lns. 50-64), the linear density of the first portion being greater than that of the second portion (Fig. 3), a first portion located between a middle portion and the butt portion (Fig. 3), a first portion extends entirely

from the middle portion to the butt portion (Fig. 3), and a linear density data of the first portion is $f(x)=ax+b$ with $a=< +$ or $- 0.000010$ in the form of 0.0 (Fig. 3) and a deviation being 0.0 (Fig. 3).

Allowable Subject Matter

6. Claims 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With respect to claim 7, none of the prior art discloses or renders as obvious a braid layer arranged on a prepreg sheet wherein an orientation angle of a braiding yarn in the braid layer is increased at a position in where a minimal value of a linear density distribution of the prepreg sheet is located in addition to the other elements of structure claimed. With respect to claim 8, none of the prior art discloses or renders as obvious a braid layer having a taper rate of an inner diameter being .007 to .010 with the angle difference between the braid angle at the butt side of a first portion and the tip side of the first portion being in a range of $-.03x$ to $-.05x$ in addition to the other elements of structure claimed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hisamatsu (6,485,376) discloses a first portion having a uniform

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linear density (Fig. 6). Inoue, Shibasaki, and Cecka disclose modifying the fiber orientation along the length of a shaft. Matsumoto discloses a linear density for a shaft (Fig. 6).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (571) 272-4406. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (571) 272-4415. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 20 June 2005


STEPHEN BLAU
PRIMARY EXAMINER